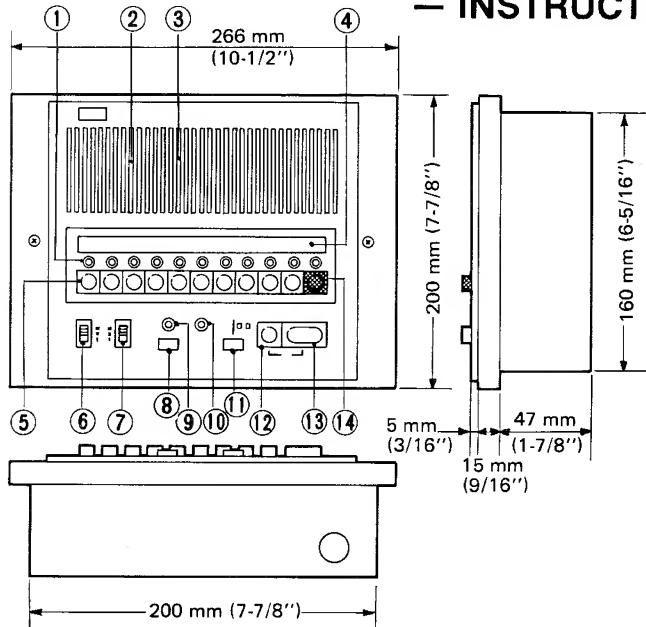


# HOME INTERCOM

**Model: LAF-10BS** (10-call master, Semi-flush mount)

LAF-10BS, SEMI-FLUSH MOUNT TYPE CAN BE INTERMIXED WITH LAF SYSTEM  
MASTERS: LAF-3A, LAF-5, LAF-10 & LAF-10S AND SUBS: LA-A, LA-AN, LA-A3, LA-AN3 & LA-D.

## — INSTRUCTIONS —



### NAMES AND FUNCTIONS

- ① Call-in annunciator light (x 10)
- ② Speaker
- ③ Microphone
- ④ Directory card
- ⑤ Selector button (x 10)
- ⑥ Volume control for communication
- ⑦ Volume control for call tone
- ⑧ All Call button
- ⑨ All Call output indicator light
- ⑩ Occupied light
- ⑪ Door release button
- ⑫ Privacy button
- ⑬ TALK button
- ⑭ OFF button

### SPECIFICATIONS

- \* Power source: DC-12V. Use PS-12A (or PS-12C in North America) power supply.
- \* Current consumption: 350mA maximum.
- \* Power output: 800mW maximum at 20 ohm.
- \* Wiring: 4 common wires plus 1 individual wire per station between masters.  
2 common wires plus 1 individual wire per sub station to master station.  
If system includes BGM and/or All Call functions, additional wires are required as shown below;
- \* Switch capacity for door release: AC 240V, 1A or DC 30V, 1A

	Between masters	Between masters & BG-1A/BG-1B
For communication	4 common + 1 individual	—
For BGM	4 common + 1 individual	4 common + 1 individual
For All Call	7 common + 1 individual	7 common + 1 individual
For both BGM and All Call	7 common + 1 individual	7 common + 1 individual
For Door Release	Additional 2 common	—

### FEATURES

CAN BE INTERMIXED WITH LAF-LOUDSPEAKER INTERCOM SYSTEM: LAF-3A, LAF-5, LAF-10 AND LAF-10S AND RELATED SUBS.

- \* Hands free reply and high output power allow use in large or noisy rooms.
- \* BGM and All Call can be incorporated using an adaptor: BG-1A/BG-1B and an amplifier.
- \* Single talk path. Occupied lamp illumination indicates the system is in use.
- \* Semi-flush mounts to wall.
- \* Separate volume controls for communication and call tone.
- \* Privacy switch prevents station from being monitored.
- \* Call lamp for sub call-in remains illuminated at master for approx. 20 seconds.
- \* Includes a button for door release.

## COMPONENTS AVAILABLE FOR USE IN LAF-10BS SYSTEM



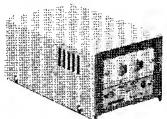
LAF-10BS, 10-call master.  
Semi-flush mount.



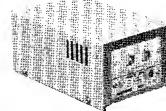
BG-1B, BGM & All Call adaptor.  
Use with PG-10B.



BG-1A, BGM & All Call adaptor.  
Use with PG-10A  
(for N. America only)



PS-12A, Standard power supply.



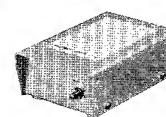
PS-12C, UL & CSA LISTED power supply (for N. America only)



PG-10B, Standard paging amplifier, 10W.



PG-10A, UL & CSA LISTED paging amplifier (for N. America only), 10W.



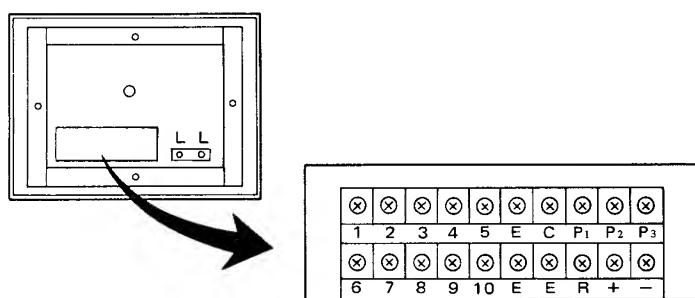
PG-3: 3-watt paging amplifier.

NOTE: The LAF system masters: LAF-3A, LAF-5, LAF-10, LAF-10S and the related subs: LA-A, LA-AN, LA-A3, LA-AN3, LA-D and LA-DA can be intermixed with your LAF-10BS system. For details, please refer to the Instructions packed with LAF masters.

## INSTALLATION

Do not attempt to install your LAF-10BS system until you have read and thoroughly understand the installation instructions. Aiphone's warranty is void if system is installed in a manner other than described in this manual.

## ACTUAL TERMINAL LOCATION



- [ ] ~ [ ] 10 : for connecting station units.
- [ ] C : for receiving a call and BGM
- [ ] + ~ [ ] - : for power supply
- [ ] E : for common communication
- [ ] R : for occupied lamp
- [ ] P<sub>1</sub> : for All Call control
- [ ] P<sub>2</sub> , [ ] P<sub>3</sub> : for All Call output
- [ ] L , [ ] L : for door release

## WIRING

Lay out your system in advance. Determine the exact location of each station. Make a sketch showing the number of wires required from each station to other stations. Assign station numbers at this time.

Begin your installation with master station #1. All masters included in your system should be connected and tested before beginning sub station installation. A space is provided at the left of the diagram to write in your color code. Note the position of C terminal on each master station. Be sure you wire each station correctly.

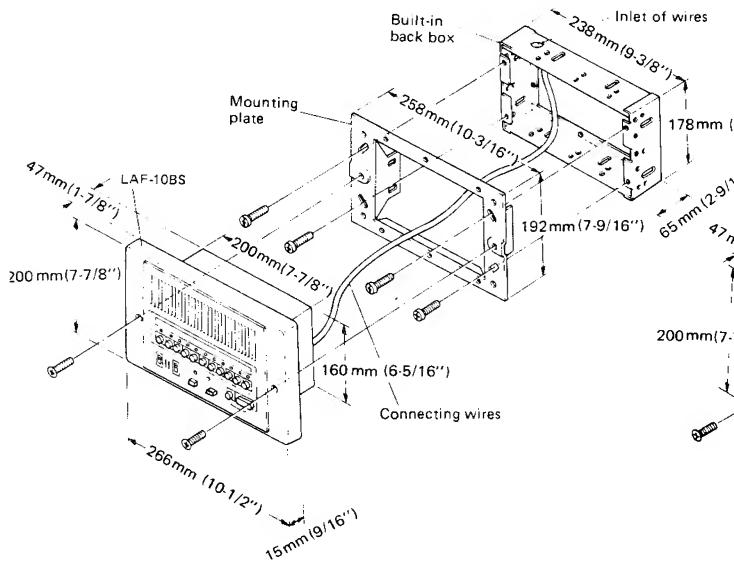
After installing your second station we recommend the power supply be connected to plus and minus and a test be made for all functions, calling and talking between each station. Unplug power supply while making connections.

Refer to the chart below and select the proper wire gauge to meet your distance requirements.

AWG WIRE SIZE	24 AWG	22 AWG	20 AWG
DISTANCE (feet)	400'	650'	1,000'
DIAMETER OF WIRE	0.5 mm	0.65 mm	0.8 mm
DISTANCE (meter)	120 m	200 m	300 m

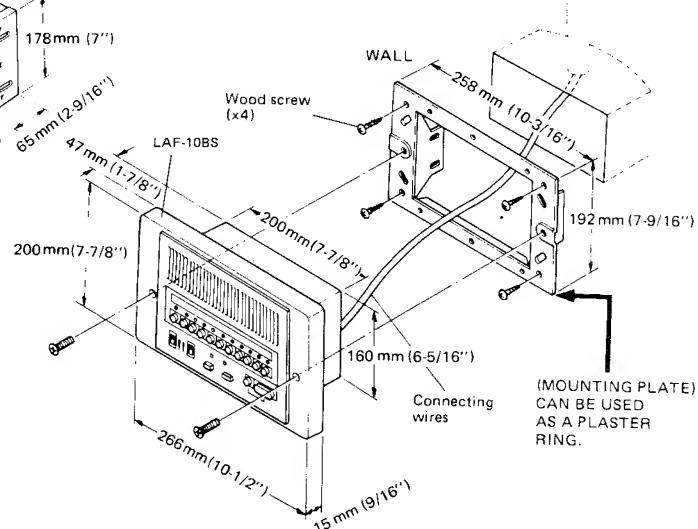
## WALL MOUNTING INSTALLATION

LAF-10BS is shipped with a built-in back box. For use in new construction, the mounting plate is attached to the back box. After wiring, mount a LAF-10BS unit to the mounting plate.



To install to existing wall, attach the mounting plate directly to wall, and mount the LAF-10BS unit to the mounting plate.

**NOTE: TO AVOID FEEDBACK, DO NOT PLACE MASTER STATION AND MASTER/SUB STATIONS BACK TO BACK, OR IN A COMMON WALL BETWEEN ROOMS.**



## ADJUSTING VOLUME CONTROLS

LAF-10BS is provided with two volume controls on front panel and allows separate volume adjustment for communication and incoming call tone to each of three levels as desired.

**NOTE:** It is recommended VOICE volume be set at middle position and TONE volume at high or medium position for normal use.

LAF-10BS has pre-setting volume control, which allows lowering the maximum level of communication. Open the back case by removing 6 screws. Using the minus driver, turn the volume counter-clockwise to achieve the desired level.

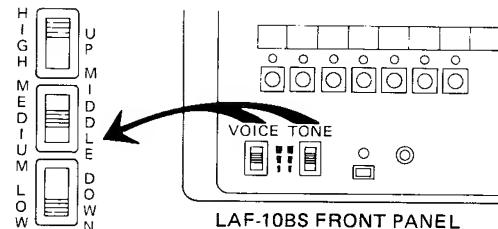
## CONNECTING BG-1A/BG-1B ADAPTOR

Your LAF-10BS system, in conjunction with a BG-1A/BG-1B and an amplifier provides All Call and/or background music when connected to music source.

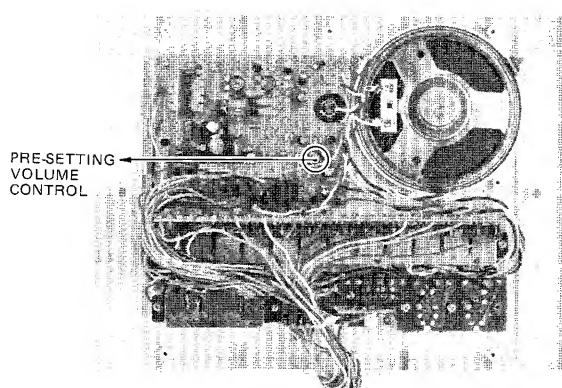
There are 11 music selector switches on BG-1A/BG-1B adaptor, which allow each LAF-10BS to receive BGM distribution individually.

Please note the followings;

- 1) In an intermixed system, either LAF-10BS or LAF-10S can initiate All Call, while other LAF masters (LAF-3A, LAF-5 or LAF-10) can receive BGM distribution and/or All Call.
- 2) LA-A3 or LA-AN3, 3-call sub station can be connected to BG-1A/BG-1B adaptor for All Call/BGM reception and to one or two masters for communication (Please refer to wiring diagram Page 6).
- 3) DO NOT USE LA-A, LA-AN, LA-D NOR LA-DA FOR ALL CALL/BGM RECEPTION.
- 4) Locate BG-1A/BG-1B as near the power supply as possible.

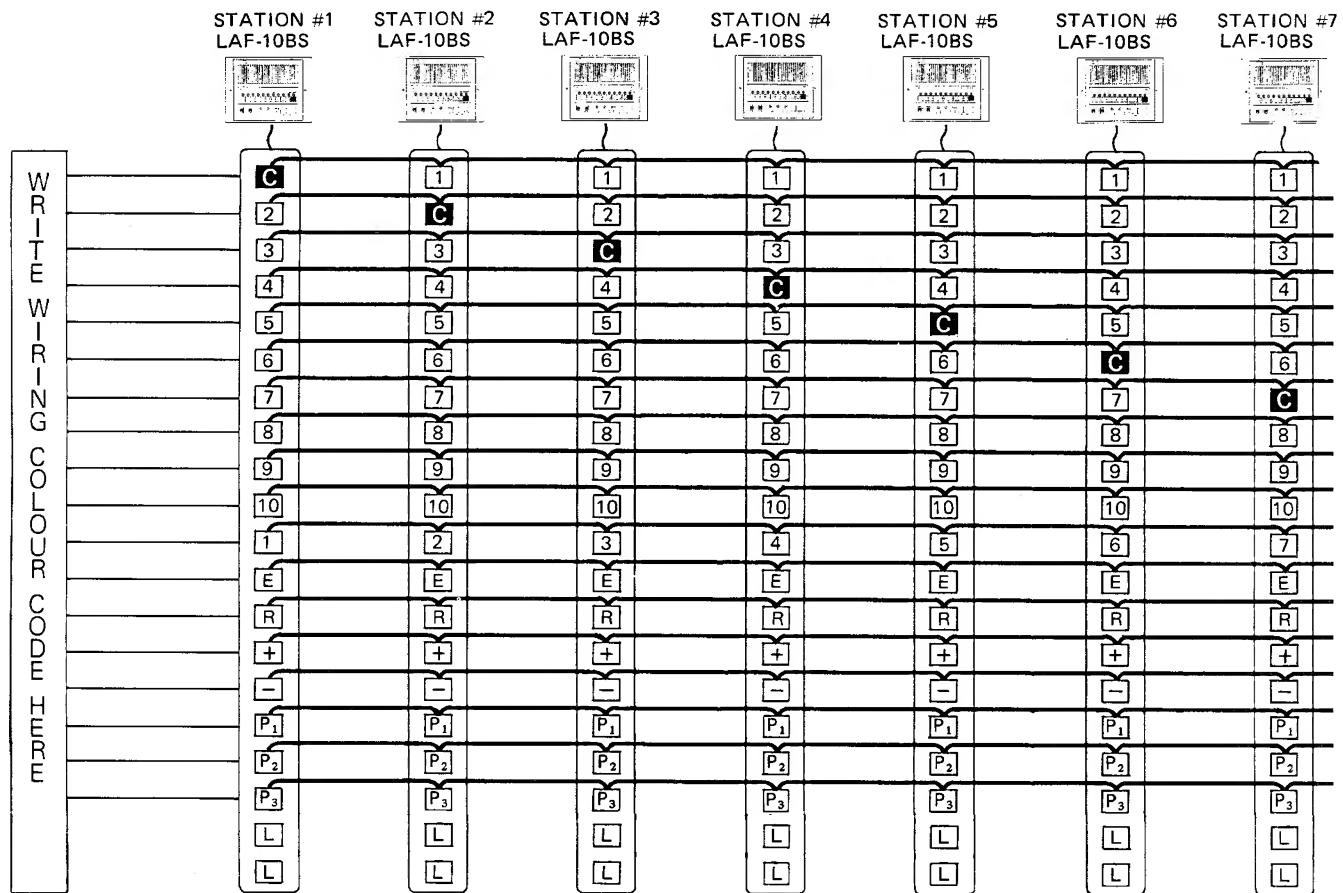


LAF-10BS FRONT PANEL

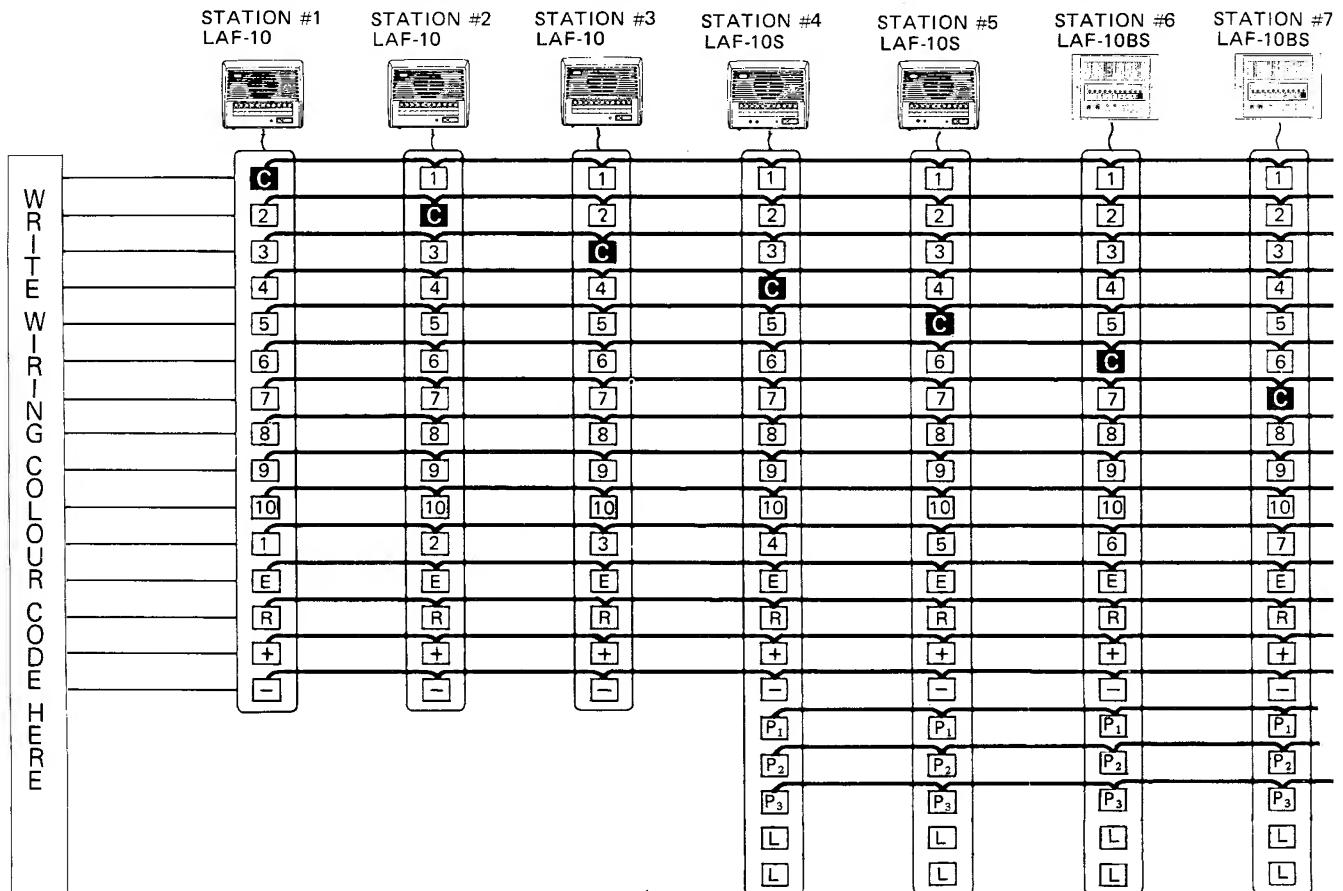


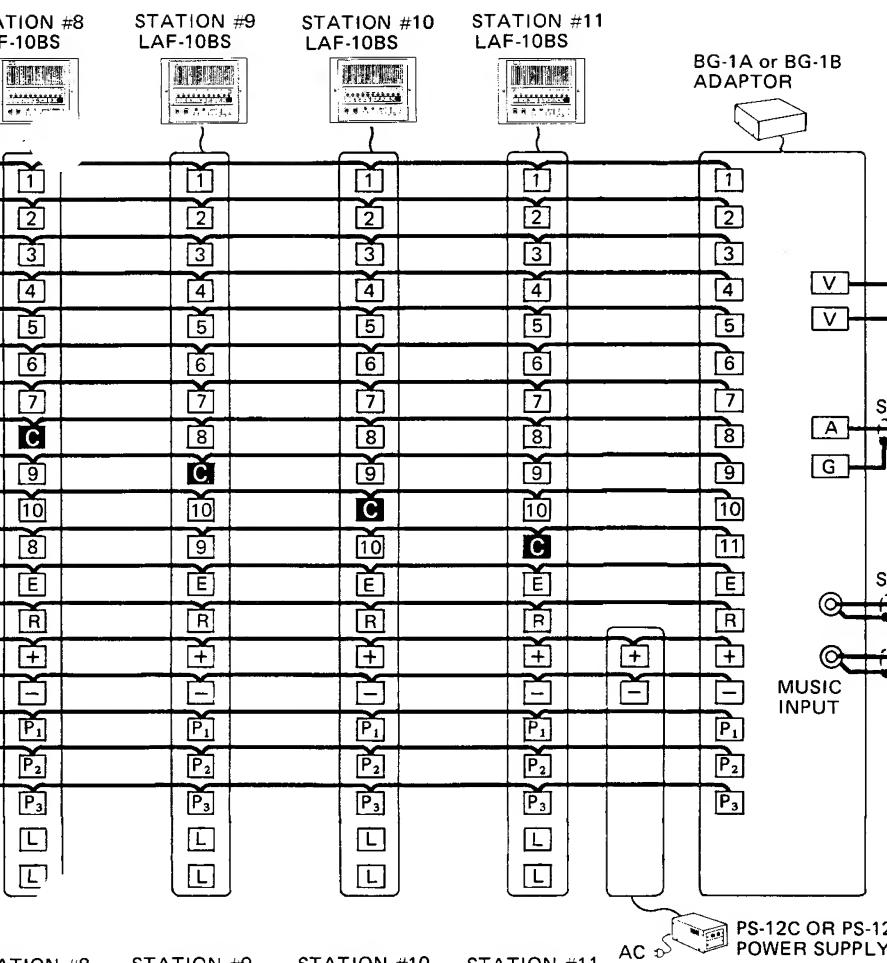
LAF-10BS INSIDE VIEW

## LAF-10BS ALL MASTER SYSTEM WITH BG-1A/BG-1B ADAPTOR

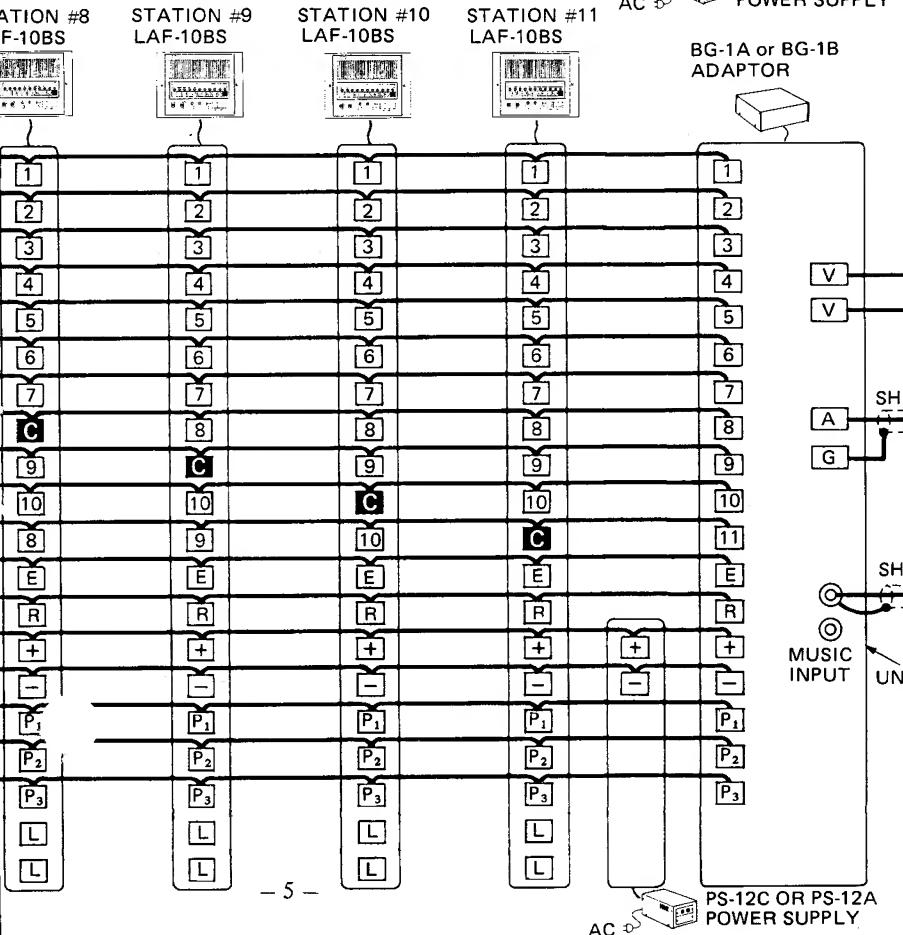


## ALL-MASTER SYSTEM OF LAF-10BS/LAF-10S/LAF-10 WITH BG-1A/BG-1B ADAPTOR





Note: Door release may be incorporated into your LAF-10BS system. Please refer to page 6 for door release installation instructions.



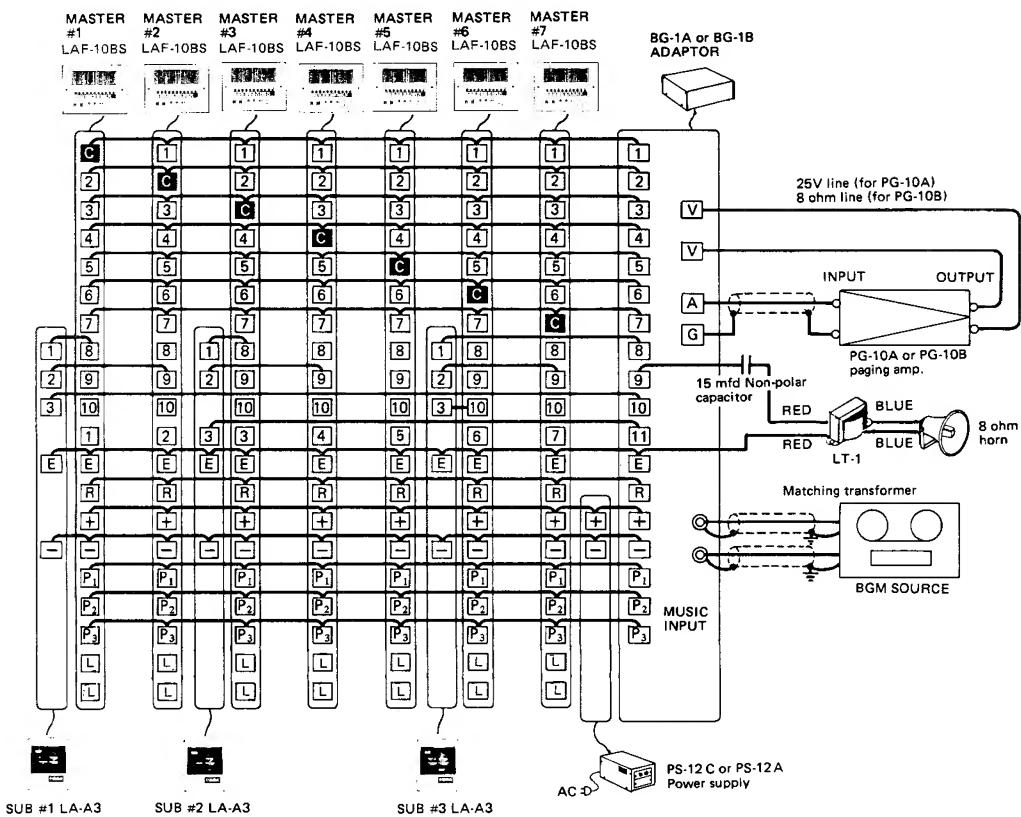
Note: WHEN USING A STEREO MUSIC SOURCE, eg. FM TUNER, 8-TRACK PLAYER OR CASSETTE PLAYER etc., CONNECT THE PHONO PLUGS DIRECTLY TO TWO PHONO JACKS ON THE BG-1A/BG-1B.

\* Output requirements of music source:  
Tuner; Use audio output: RANGE; 300mV ~ 1.2V, 10K ohm ~ 100K ohm.  
Tape player; Use low level output: RANGE; 300mV ~ 1.2V, more than 600 ohm.

AC

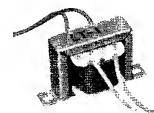
PS-12C OR PS-12A  
POWER SUPPLY

## LAF-10BS INTERMIXED SYSTEM WITH BG-1A/BG-1B



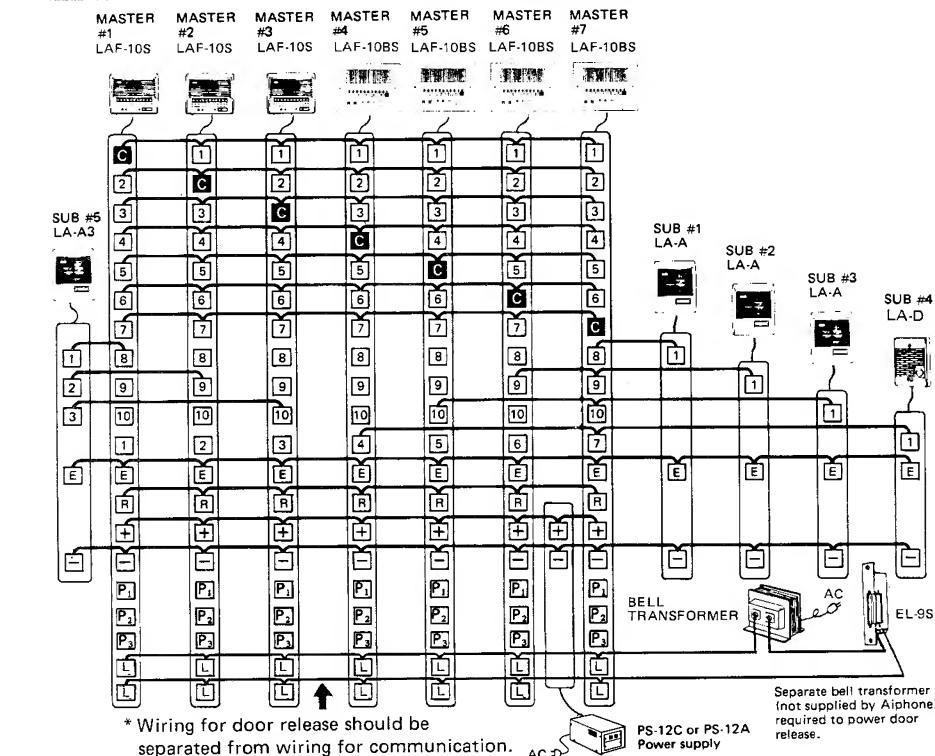
This diagram illustrates LAF-10BS system, using 3 LA-A3, 3-call sub stations intermixed.

Each LA-A3 can receive All Call and BGM, and communicate with two respective LAF-10BS masters.



LT-1:  
20 ohm to 8 ohm matching transformer  
Connects LAF-10BS to a 8 ohm paging horn.  
(The 8 ohm speaker can only receive All Call and BGM.)

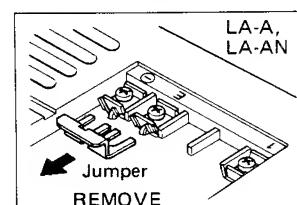
## LAF-10BS AND LAF-10S WITH DOOR RELEASE



A call from LA-D door station will be annunciated at LAF-10BS #4 and #7. Door lock may be released from any LAF-10S or LAF-10BS masters.

All call and BGM may be added into LAF-10BS system incorporating door release.

Remove jumper between E and - terminals on all subs when used in an intermixed system.



\* Wiring for door release should be separated from wiring for communication.

PS-12C or PS-12A Power supply  
AC

## MASTER STATION OPERATION

- \* Placing a call:
  - 1) If occupied light is not lit, depress the selector button for the desired station.
  - 2) To call by tone, momentarily depress both PRIVACY and TALK buttons.
  - 3) To call by voice, depress TALK button and speak to the microphone.
  - 4) Use TALK button to control communications.
  - 5) Upon completing conversation, depress OFF button.

NOTE: LAF-10BS master station OFF button, when depressed, puts station in standby position as well as off position. OFF button MUST BE DEPRESSED and LOCKED DOWN on all master stations except station initiating a call or system will not work. Station selection will be indicated by a selection light above OFF button.

- \* Receiving a call from another master:
  - 1) When your station is in non-privacy position, no action is required and communication is hands free.
  - 2) When your station is switched for privacy, release privacy button by momentarily depressing TALK button, then resuming hands free operation.

NOTE: There is no LED annunciation between master stations except the Occupied light.

- \* Receiving a call from a sub station:
  - 1) An incoming call is annunciated both by tone and light. Depress the selector button below the lighted annunciator light (and the light goes off).
  - 2) Use TALK button to control communications. Upon completing conversation, depress OFF button.
  - 3) Receiving a call from door station: Depress door release button for unlocking the door.

NOTE: When you receive calls from another master and a sub at the same time, reply first to master and, after the occupied light goes out, depress the selector button of the calling sub and communicate.  
DO NOT DEPRESS THE SELECTOR BUTTON WHILE THE OCCUPIED LIGHT IS ILLUMINATED.

- \* Distributing BGM:
  - 1) Turn on the ON/OFF switch for music on BG-1A/BG-1B as well as BGM source and an amplifier and BGM will be distributed through the selected station(s).  
BGM is cut off automatically during communication.
  - 2) When not distributing BGM, turn off the ON/OFF switch on BG-1A/BG-1B.

NOTE: A call tone from a sub during BGM distribution, will be announced through all the master station speakers, while the annunciator light on the called master stays lit for about 20 seconds.

- \* All Call (LAF-10BS and LAF-10S only)
  - 1) Depress All Call button. A pre-tone will sound at the connected master station speakers. BGM is cut off automatically during All Call.
  - 2) Depress TALK button while making announcement.
  - 3) After announcement, unlock All Call switch by pushing it.

NOTE: DO NOT MAKE ALL CALL ANNOUNCEMENT WHILE OCCUPIED LIGHT IS LIT.

## LA-A3/LA-AN3 OPERATION

- \* Momentarily depress call button of desired master (unlock the privacy switch first for LA-AN3). After master replies, communication from LA-A3 (or LA-AN3) is hands free.
- \* If no call tone is heard when call button is depressed, the system is occupied with another conversation. Please call later.
- \* At conclusion of conversation, depress privacy button (only for LA-AN3).

NOTE: Background music will be cut off temporarily if you press the call button connected to BG-1A/BG-1B adaptor on LA-A3 or LA-AN3.

## TO PREVENT ELECTRIC SHOCK

- \* DO NOT CONNECT ANY TERMINAL ON ANY UNIT TO AC POWER LINES.
- \* BE SURE TO REMOVE PLUG OF PS-12C (or PS-12A) FROM POWER OUTLET BEFORE YOU OPEN THE UNIT, OR MAKE WIRING CONNECTIONS.
- \* Do not pinch connecting wires in windows, doors or desks.
- \* LAF-10BS must be installed in as dry and dust-free environment as possible.

## CLEANING YOUR INTERCOM STATIONS

- \* Your Aiphone intercom stations may be cleaned with a soft cloth dampened with household cleanser, such as Mr. Clean or Fantastik.

\*\*\*

We at Aiphone are proud of our products. Our designers and engineers strive to bring you the finest in communication equipment. Each item has been carefully tested and inspected before leaving our factory. Properly installed and used, your Aiphone intercom system should give years of trouble-free service.

We are pleased to offer the following warranty:

### WARRANTY

Aiphone warrants its products to be free from defects of material and workmanship under normal use and service for a period of one year after delivery to the ultimate user and will repair free of charge or replace at no charge, should it become defective upon which examination shall disclose to be defective and under warranty. Aiphone reserves unto itself the sole right to make the final decision whether there is a defect in materials and/or workmanship; and whether or not the product is within the warranty.

This warranty shall not apply to any Aiphone product which has been subject to misuse, neglect, accident, or to use in violation of instructions furnished, nor extended to units which have been repaired or altered outside of the factory.

This warranty does not cover batteries or damage caused by batteries used in connection with the product.

This warranty covers bench repairs only, and any repairs must be made at the shop or place designated in writing by Aiphone. Aiphone will not be responsible for any costs incurred involving on site service calls.

Aiphone Co., Ltd., Nagoya, Japan  
Aiphone Corporation, Bellevue, Washington

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